Facing Challenge Following Early Adversity

Anna Parenteau, Nicole Perry, Shreya Lakhan-Pal, Bonny Donzella & Megan R. Gunnar
Institute of Child Development, University of Minnesota

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Background

- **Emotion regulation**, the ability to manage one's own emotional experiences and expressions, is linked to social development and academic performance (Carlo, Crockett, Wolff, & Beal, 2012; Blair & Diamond, 2008).
- The ability to regulate emotions develops most rapidly in the first few years of life. (Eisenberg, Spinrad, & Eggum, 2010).
- Experiencing adversity early in life in the form of institutionalized care with a lack of stable caregiving can hinder the development of children's emotion regulation skills (Tottenham et al., 2010).
- In the present study, it is hypothesized that children and adolescents who were internationally adopted after being in institutional care will have less successful emotion regulation skills during a social stress test than their non-adopted counterparts.

Method

- Children completed the Trier Social Stress Test (TSST), where a speech is given and verbal math is performed while being judged and videotaped.
- Videotapes of the public speaking task were watched and coded for expression of emotions/anxiety: see Coding Scheme.
- A team of 4 coders were trained to criterion with Master coders, and coder reliability was maintained with intraclass correlations above .75.
- Coding of emotion regulation is underway, and preliminary results are presented at this time.

Participants

- Internationally Adopted Children (44) and Non-Adopted Children (57) N= 101, (Male n=28, Female n=73)
- Age range of 7-14 (Mean=11.2; SD=2.18)
- Participants were taking part in a longitudinal study. The results are from year one of the study.

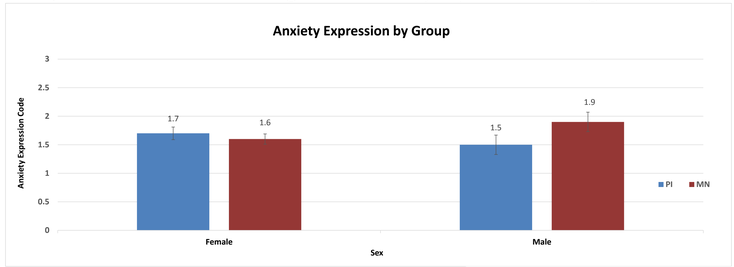
Measures

- Confirmatory factor analysis, using principle components
- Determined 2 factors :
- Factor 1- ***"Anxiety"*** (gross bodily anxiety, vocal anxiety, facial anxiety, and global negative arousal) E= 3.03, coder ICC =.82
- Factor 2- ***"Engagement"*** (social engagement, positive expressivity) E= 1.16 , coder ICC =.79
- Bivariate Correlation r(100)= -.44, p<.001
- Child self-report data was utilized to demonstrate the stress that was experienced during the task, as a manipulation check.
- Parent-report of emotion regulation correlated with anxiety factor and engagement, to provide evidence that the behavior witnessed in the task was characteristic of the child.

Preliminary Results

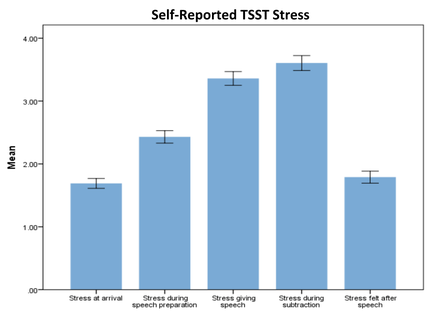
Anxiety Expression by Group

- ANOVA predicting anxiety by group and sex, controlling for age
- Age as significant covariate, age F(1,84) = 14.06 p< .001
- Showed no group or sex main effects
- Trend for group by sex interaction F(1,84) = 2.89 p=.09
  Such that, MN-born males showed greatest anxiety expression during TSST

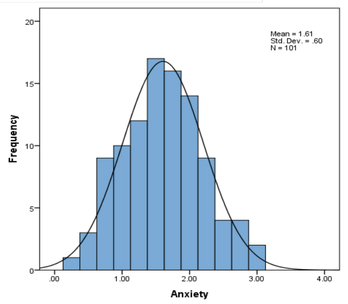


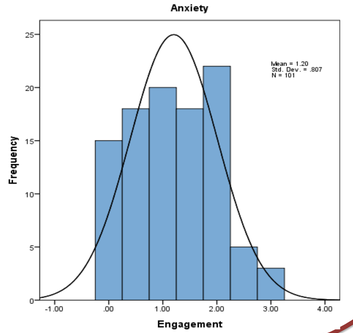
Engagement by Group

- ANOVA predicting social engagement by group and sex, controlling for age showed no significant differences.



- Children rated how stressed they felt at different times of the task, confirming that participants did feel stress while giving the speech.
- Histograms on the right demonstrate the distribution of the engagement factor and anxiety factor among participants.





Coding Scheme

- *Positive Expressivity*: "Prolonged Smiles and/or Laughing"
- *Facial Anxiety*: "Furrowed brow or wincing"
- *Vocal Anxiety*: "Quaking in voice"
- *Frequency of Experimenter Prompt*: Number of times told to continue
- *Gross Motor Anxiety*: "Repetitive or constant large body movements, sway"
- *Fine Motor Anxiety*: "Repetitive or sustained fine body movements, fidgeting"
- *Social Engagement*: "Conveying meaning and emotion, or gesturing"
- *Global Negative Arousal*: Overall impression of level of distress
- Behavior scored 0-3 (0=no evidence; 3=high intensity)

Discussion

- The findings revealed no group differences. We need to be cautious in this conclusion, however, as we have 197 participants still to code. Nonetheless, this would seem to be good news for adopted youth.
- Examining emotion regulation in post-institutionalized children is important because if differences are found, this can lead to future interventions for adopted children.
- The relationship between institutionalization and emotion regulation also has important implications in the literature about early caregiving environments and relationships.
- The bivariate correlation between factors (-.44, p<.001) shows that the anxiety factor and engagement factor are not perfect opposites, but are correlated, which demonstrates that participants can be anxious and still have an engaging speech (i.e. managing emotions).
- The *Emotion Regulation Checklist* parent-report used in study determined that children with less effective emotion regulation skills (e.g. frequent mood swings) exhibited anxiety (r=.28) and negative engagement (r=-.39) during their speech.
- Something to consider about this study is that a participant's anxiety and/or engagement during a speech can be influenced by other factors than just emotion regulation skills.
- Age was found to be a significant covariate, and participants were of a wide range of pubertal development, which could affect emotion regulation skills or public speaking skills in general.
- In the future, we hope to continue this analysis with a larger and more balanced sample size.

References

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